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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

O STEEN, DAVID R

ART UNIT

PAPER NUMBER

2623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/973,976

Applicant(s)

THOMAS ET AL.

Examiner

David R. O'Steen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11-29, 37-44, 47-65, 73-80, 83-101 and 109-132 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-29, 37-44, 47-65, 73-80, 83-101 and 109-132 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7-23-2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1 A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 13, 2007 has been entered.

Information Disclosure Statement

2. A certified translation of Japanese Document 60061935 was received by the office on August 15, 2006 and has been considered by the examiner. An updated IDS has been included with this office action.

Response to Arguments

3. Applicant's arguments with respect to claims 28, 29, 64, 65, 100, and 101 and their dependent claims have been considered but are moot in view of the new ground(s) of rejection. As regards independent Claims 1, 37, and 73, the applicant traverses these rejections. After summarizing the applicant's invention and the disclosure of Brown, the applicant states, on page 37 of his "Remarks" that providing NVOD options does not constitute providing to the user the "actual bandwidth available." The

examiner disagrees. When a VOD service cannot be enjoyed by a user, the system inquires whether the user would prefer an NVOD presentation of the content (col. 6, lines 20-29). The various options available to the user are presented on the television display (col. 4, lines 11-16). The examiner maintains that this meets the applicant's limitation as found in Claim 1, 37, and 73 of "presenting the available bandwidth to the user on a display."

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 11, 13, 14, 37, 38, 47, 49, 50, 73, 74, 83, 85, 86 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown (US 5,822,530).

As regards Claims 1, 37, and 73, Brown discloses a method, system, and computer program product for managing the distribution of on-demand media using an interactive television application, comprising: receiving a request for on-demand media from a user (col. 2 lines 46-51) wherein the on-demand media is associated with a suggested bandwidth for transmission of the on-demand media; determining an available bandwidth that is available for the transmission of the on-demand media; comparing the suggested bandwidth to the available bandwidth at a television distribution facility; and providing an option for the transmission of the on-demand media

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to the user that is based at least partially on the comparison of the suggested bandwidth to the available bandwidth (col. 2, lines 51-62) and presenting the available bandwidth to the user on a display (col. 6, lines 20-29). The examiner understands that providing an option for the transmission of the on-demand media to the user that is based at least partially on the comparison of the suggested bandwidth to the available bandwidth is equivalent to directing the user to a NVOD presentation of the media if the interactive cable television system is unable to support the required bandwidth of the VOD broadcast. Moreover, the examiner understands that denying the user's VOD request asking if the user would like to purchase the NVOD request is the same as presenting the available bandwidth to the user on a display.

As regards Claims 2, 38, and 74 Brown further discloses that receiving the request comprises receiving the request for real-time transmission of the on-demand data (col. 6, lines 9-17).

As regards Claims 11, 47, and 83, Brown further discloses that presenting the available bandwidth to the user comprises displaying a graphical representation of the available on the display (such as in a graphical message, col. 6, lines 20-29).

As regards Claims 13, 49, and 85, Brown discloses comparing the suggested bandwidth to the available bandwidth comprises determining that the available bandwidth is greater than or equal to the suggested bandwidth (col. 3, lines 63-66).

As regards Claims 14, 50, and 86, Brown further discloses comparing the suggested bandwidth to the available bandwidth comprises determining that the

available bandwidth is less than the suggested bandwidth (cols. 3 and 4, lines 66-67 and 1-4).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 15, 17, 18, 22, 23, 24, 25, 39, 51, 53, 54, 58, 59, 60, 61, 62, 75, 87, 89, 90, 94, 95, 96, 97, and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530) in view of Haddad (US 2005/0097619).

As regards Claims 3, 39, and 75, Brown discloses Claims 1, 37, and 73 but does not disclose receiving the request comprises receiving the request for transmission of the on-demand media at a future time. Haddad discloses that receiving the request comprises receiving the request for transmission of the on-demand media at a future time (paragraph 13, lines 3-10).

Brown and Haddad are analogous art because they both come from the same field of endeavor, Video on Demand.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the time transmission of Haddad with the VOD system of Brown because allowing the user to set a time in advance to watch the video allows for the VOD provider to better manage the transfer load of the network.

As regards Claim 15, 51, and 87, Haddad further discloses providing the option for the transmission of the on-demand media comprises providing the user with the ability to schedule a time for the transmission of the on-demand media to the user (paragraph 3, lines 1-10). It is understood by the examiner that allowing the user to schedule a time for transmission is equivalent to allowing the user to schedule a time interval for transmission.

As regards Claims 17, 53, and 89, Haddad further discloses providing the user with the ability to schedule the time for the transmission of the on-demand media comprises basing a price for the transmission of the on-demand media on the scheduled time (paragraph 13, lines 24-28).

As regards Claim 18, 54, and 90, Haddad further discloses that providing the option for the real-time transmission of the on-demand media comprises recommending a time to the user for the transmission of the on-demand media to the user (paragraph 13, lines 24-28). It is understood by the examiner that recommending a time for transmission is equivalent to encouraging distribution during certain hours.

As regards Claims 22, 58, and 94, Haddad further discloses that providing the option for the transmission of the on-demand media comprises providing the option to transmit the on-demand media to a recording device for the presentation to the user at a scheduled time (paragraphs 13 and 15, lines 19-23 and 1-4).

As regards Claims 23, 59, and 95 Haddad further provides the option to transmit the on-demand media to the recording device for the presentation to the user at the

scheduled time comprises basing the price for the transmission of the on-demand media to the recording device on the scheduled time (paragraph 13 lines 13-28).

As regards Claims 24, 60, and 96, Brown further discloses that transmitting the on-demand media in a plurality of sections wherein each section is transmitted at the suggested bandwidth (col. 3, 63-66).

As regards Claims 25, 61, and 97, Brown further discloses further transmitting the on-demand media in a plurality of sections and wherein at least one of the plurality of sections has a bandwidth that is different than the suggested bandwidth (cols. 3 and 4, lines 66-67 and 1-4). On-demand media is transmitted as a series of frames where each frame could be understood as its own section. In the case of Brown, when there is not sufficient bandwidth for the VOD presentation, all sections are transmitted at a bandwidth that is different than the suggested bandwidth

As regards Claims 26, 62, and 98, Brown further discloses comprising transmitting the on-demand media at a bandwidth that is different than the suggested bandwidth (cols. 3 and 4, lines 66-67 and 1-4). It is assumed that VOD presentation of the media in Brown is broadcast at the suggested bandwidth and the NVOD presentation is at a different bandwidth.

Claims 5, 6, 7, 8, 41, 42, 43, 44, 77, 78, 79, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530) in view of Schumacher (US 6,757,907).

As regards Claims 5, 41, and 77, Brown discloses the content of Claims 1, 37, and 73 but does not disclose presenting the suggested bandwidth to the user.

Schumacher discloses presenting the suggested bandwidth to the user (fig. 2.221).

Brown and Schumacher are analogous art because they both come from the same field of endeavor, Video on Demand.

At the time of the invention, it would have been obvious to a person of ordinary skill that in the art to combine the bandwidth display of Schumacher with the VOD system of Brown because it allows the user to know how much of the network's resources he is using.

As regards Claims 6, 42, and 78, Schumacher further discloses presenting the suggested bandwidth to the user comprises displaying the suggested bandwidth on the display (fig. 2.221).

As regards Claims 7, 43, and 79, Schumacher further discloses presenting the suggested bandwidth to the user comprises displaying a graphical representation of the suggested bandwidth on the display (fig. 2.221).

As regards Claims 8, 44, and 80, Brown and Schumacher do not disclose presenting the suggested bandwidth audibly. The examiner takes official notice that presenting the suggested bandwidth audibly is an obvious variation on presenting the suggested bandwidth graphically, as in Schumacher (fig. 2.221). Audibly presenting the bandwidth to the user could be used to improve the experience of the visually impaired.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine presenting the bandwidth audibly to the VOD system of Brown and Schumacher to improve the experience of the visually impaired.

Claims 12, 48, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530).

As regards Claims 12, 48, and 84, Brown discloses the contents of Claims 1, 37, and 81. Brown does not disclose that presenting the available bandwidth audibly. The examiner takes official notice that presenting the available bandwidth audibly is an obvious variation on presenting the available bandwidth graphically. Audibly presenting the bandwidth to the user could be used to improve the experience of the visually impaired when using the VOD system.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine presenting the bandwidth audibly to the VOD system of Brown and Schumacher to improve the experience of the visually impaired.

Claims 16, 52, and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530) in view of Haddad (US 2005/0097619) and Schumacher (US 6,757,907).

As regards Claims 16, 52, and 88, Brown and Haddad jointly disclose Claims 15, 51, and 87. However, they do not disclose providing the user with an ability to request a version of the on-demand media having a reduced bandwidth. Schumacher discloses

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providing the user with an ability to request a version of the on-demand media having a reduced bandwidth (fig. 2.221). It is understood that if there are two bandwidths available, one must be smaller than the other and so reduced as compared to the other.

Brown, Haddad, and Schumacher are analogous art because they both come from the same field of endeavor, Video on Demand.

At the time of the invention, it would have been obvious to a person of ordinary skill that in the art to combine the bandwidth display of Schumacher with the VOD system of Brown and Haddad because it allows the user to choose how much of the network's resources he is using.

Claims 4, 19, 20, 21, 40, 55, 56, 57, 76, 91, 92, and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530) in view of Shah-Nazaroff (US 6,157,377).

As regards Claims 4, 40, and 76, Brown discloses the contents of claims 1, 37, and 73. He does not disclose receiving the request for on-demand media that is selected from the group consisting of an audio selection, a video selection, an electronic publication, an electronic game, a software application, and any combination thereof. Shah-Nazaroff discloses receiving the request for on-demand media that is selected from the group consisting of an audio selection, a video selection, an electronic publication, an electronic game, a software application, and any combination thereof (fig. 5).

Brown and Shah-Nazaroff are analogous art because they both come from the same field of endeavor, Video on Demand.

At the time of the invention, it would have been obvious to a person of ordinary skill that in the art to combine the available time slots display of Shah-Nazaroff with the VOD system of Brown because it allows the user to easily choose when he will watch the media.

Shah-Nazaroff does disclose providing the option of the on-demand media comprises presenting a general trend to the user of available time slots for the transmitting on-demand media in response to user requests (fig. 5). In this case, the general trend to the user of available time slots is that of once every 2 hours.

As regards Claims 19, 55, and 91, Shah-Nazaroff further discloses providing the option for the transmission of the on-demand media comprises presenting a general trend to the user of available time slots for transmitting on-demand media in response to user requests (see optional programming guide, fig. 5).

As regards Claims 20, 56, and 92, Shah-Nazaroff further discloses providing the option for the transmission of the on-demand media comprises providing the user with an ability to request a version of the on-demand media having a reduced bandwidth (fig 5).

As regards Claims 21, 57, and 93, Shah-Nazaroff further discloses providing the user with the ability to request the version of the on-demand media having the reduced bandwidth comprises basing a price for the transmission of the on-demand media on the reduced bandwidth (fig. 5).

Claims 27, 63, and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530) in view of Haddad (US 2005/0097619) and Shah-Nazaroff (US 6,157,377).

As regards Claims 27, 63, and 99, Brown and Haddad jointly disclose Claims 22, 58, and 94, but do not disclose providing an option to transmit the on-demand media to the recording device for presentation to the user at the scheduled time comprises basing a price for the transmission of the on-demand media on the available bandwidth. Shah-Nazaroff discloses providing an option to transmit the on-demand media to the recording device for presentation to the user at the scheduled time comprises basing a price for the transmission of the on-demand media on the available bandwidth (fig. 5).

Brown, Haddad, and Shah-Nazaroff are analogous art because they both come from the same field of endeavor, Video on Demand.

At the time of the invention, it would have been obvious to a person of ordinary skill that in the art to combine the pricing scheme for bandwidth of Shah-Nazaroff with the VOD system of Brown and Haddad because it allows the user to easily choose the quality of picture for the transmission.

Claims 28, 64, 100, 109, 111-112, 117, 119-120, 125, and 127-128 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530) in view of Giammaressi (US 2003/0061619).

As regards Claims 28, 64, and 100, Brown discloses a method, system, and computer program product, Brown discloses a method for managing the distribution of on-demand media using an interactive television application, comprising: receiving a request for on-demand media from a user (col. 2 lines 46-51) wherein the on-demand media is associated with a suggested bandwidth for transmission of the on-demand media; determining an available bandwidth that is available for the transmission of the on-demand media; wherein determining the available bandwidth comprises basing the available bandwidth on a measure of bandwidth usage (such as the customer count variable N), comparing the suggested bandwidth to the available bandwidth at a television distribution facility (the difference between the maximum VOD customer count value and N); but fails to disclose providing an option for the transmission of the on-demand media to the user in real-time if the available bandwidth is less than the suggested bandwidth. Giammaressi discloses providing an option for the transmission of the on-demand media to the user in real-time if the available bandwidth is less than the suggested bandwidth (if a regular bandwidth program can not be transmitted, the system transmits a reduced bandwidth program to the user, paragraphs 31-39).

At the time of the invention, it would have been obvious to one skilled in the art to combine the on-demand media in real-time, as done in Giammaressi, an analogous art, to the VOD system of Brown so that the user can enjoy a VOD program even if at a lower bandwidth.

As regards Claims 109, 117, and 125, Giammaressi discloses the option for the transmission of the on-demand media in real-time comprises providing the user with an

ability to request a version of the on-demand media having a reduced bandwidth (paragraph 35).

As regards Claims 111, 119, and 127, Giammaressi discloses presenting the suggested bandwidth to the user on the display (paragraphs 31-39).

As regards Claims 112, 120, and 128, Giammaressi discloses presenting the available bandwidth on the screen (if the system can not the display the regular definition program, the system displays the user the reduced bandwidth program, paragraphs 31-39).

Claims 29, 65, 101, 113, 115-116, 121,123-124, 129, and 131-132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530) in view of Haddad (US 2005/0097619) and in further view of Giammaressi (US 2003/0061619).

As regards Claims 29, 65, and 101, Brown discloses a method, system, and computer program product, for managing the distribution of on-demand media using an interactive television application, comprising: receiving a request for on-demand media from a user (col. 2 lines 46-51) wherein the on-demand media is associated with a suggested bandwidth; determining an available bandwidth that is available for the transmission of the on-demand media; wherein determining the available bandwidth comprises basing the available bandwidth on a predicted bandwidth usage (such as the customer count variable N), comparing the suggested bandwidth to the available bandwidth at a television distribution facility (the difference between the maximum VOD customer count value and N); and providing an option for the transmission of the on-

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demand media to the user that is based at least partially on the comparison of the suggested bandwidth to the available bandwidth (col. 6, lines 8-29 or 55-67 and col. 7, lines 1-17) but fails to disclose wherein the available bandwidth comprises basing the available bandwidth on a predicted bandwidth usage. Haddad discloses wherein the available bandwidth comprises basing the available bandwidth on a predicted bandwidth usage (by distinguishing between peak and off-peak delivery, paragraph 12, lines 1-11).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the time transmission of Haddad, an analogous art, with the VOD system of Brown because scheduling VOD transfers based on the predicted bandwidth usage allows the on-demand media manager to better utilize the distribution system's resources.

They fail to disclose providing an option for the transmission of the on-demand media to the user in real-time if the available bandwidth is less than the suggested bandwidth. Giammaressi discloses providing an option for the transmission of the on-demand media to the user in real-time if the available bandwidth is less than the suggested bandwidth (if a regular bandwidth program can not be transmitted, the system transmits a reduced bandwidth program to the user, paragraphs 31-39).

At the time of the invention, it would have been obvious to one skilled in the art to combine the on-demand media in real-time, as done in Giammaressi, an analogous art, to the VOD system of Brown and Haddad so that the user can enjoy a VOD program even if at a lower bandwidth.

As regards Claims 113, 121, and 129, Giammaressi discloses the option for the transmission of the on-demand media in real-time comprises providing the user with an ability to request a version of the on-demand media having a reduced bandwidth (paragraph 35).

As regards Claims 115, 123, and 131 Giammaressi discloses presenting the suggested bandwidth to the user on the display (paragraphs 31-39).

As regards Claim 116, 124, and 131, Giammaressi discloses presenting the available bandwidth on the screen (if the system can not the display the regular definition program, the system displays the user the reduced bandwidth program, paragraphs 31-39).

Claims 110, 118, and 126 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530) in view of Giammaressi (US 2003/0061619) and in further view of Shah-Nazaroff (US 6,157,377).

As regards Claims 110, 118, and 126 Brown and Giammaressi disclose the method, system, and product of Claims 109, 117, and 125 but fail to disclose basing a price for the transmission of the on-demand media on the reduced bandwidth. Shah-Nazaroff discloses basing a price for the transmission of the on-demand media on the reduced bandwidth (fig. 7).

At the time of the invention, it would have been obvious to one skilled in the art to combine the pricing of Shah-Nazaroff, an analogous art, to the VOD system of Brown

and Giammaressi so that the provider can entice the user to watch a low bandwidth program.

Claims 114, 122, and 130 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 5,822,530) in view of Haddad (US 2005/0097619) in view of Giammaressi (US 2003/0061619) and in further view of Shah-Nazaroff (US 6,157,377).

As regards Claims 110, 122, and 130, Brown, Haddad, and Giammaressi disclose the method, system, and product of Claims 109, 121, 129 but fail to disclose basing a price for the transmission of the on-demand media on the reduced bandwidth. Shah-Nazaroff discloses basing a price for the transmission of the on-demand media on the reduced bandwidth (fig. 7).

At the time of the invention, it would have been obvious to one skilled in the art to combine the pricing of Shah-Nazaroff, an analogous art, to the VOD system of Brown, Haddad, and Giammaressi so that the provider can entice the user to watch a low bandwidth program.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R. O'Steen whose telephone number is 571-272-7931. The examiner can normally be reached on 8:30 to 5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DRO


ANDREW Y. KOENIG
PRIMARY PATENT EXAMINER